MEMORANDUM

SUBJECT: The FY2000/2001 Scientific and Technological Achievement Awards (STAA) Program

FROM: Norine E. Noonan
Assistant Administrator (8101R)

TO: Assistant Administrators
Associate Administrators
Regional Administrators
ORD Center / Laboratory Directors

I am pleased to issue this year's call for nominations for the FY2000/2001 Scientific and Technological Achievement Awards (STAA). STAA is an Agency-wide Competition, judged by the Science Advisory Board (SAB), recognizing outstanding published scientific and technical papers by the Agency's staff. Based on the recommendations of the SAB and comments received from other organizations, considerable administrative improvements have been adopted to make nominations less cumbersome and protective of individual privacy.

Announcement of results of the FY1999-2000 Competition are forthcoming. Attached are (1) nomination procedures and guidelines, (2) program schedule, and (3) nomination forms. Official FY2000 documents are available for your convenience at http://es.epa.gov/ncerqa/rfa/. Select "Announcement" on the side bar and proceed. Nomination packages should be sent to Dr. Richard Nalesnik, Peer Review Division, National Center for Environmental Research [NCER], (8725R). All nominations must be received no later than COB November 24, 2000. Should questions arise, please contact Dr. Nalesnik at 202-564-6889.

Attachments

cc: EPA Science Advisory Board
EPA Program Offices

SCIENTIFIC AND TECHNOLOGICAL ACHIEVEMENT AWARDS

2000 NOMINATION PROCEDURES AND GUIDELINES

I. INTRODUCTION

The mission of the United States Environmental Protection Agency (EPA) is to protect public health and safeguard and improve the natural environment-the air, water, and land upon which life depends. Achievement of this mission requires the application of sound science to the assessment of environmental problems and to the evaluation of possible solutions. The Office of Research and Development (ORD) at EPA is committed to providing the best products in high-priority areas of scientific research.

II. PROGRAM OVERVIEW

The Scientific and Technological Achievement Awards (STAA) program promotes and recognizes scientific and technological achievements by the U.S. Environmental Protection Agency (EPA) employees. The STAA program began in 1980 and is sponsored by the Office of Research and Development (ORD). ORD manages the STAA program and provides administrative oversight. EPA's Science Advisory Board (SAB) provides scientific and technological evaluation. While this program is sponsored by ORD and has considerable ORD participation, the intent is to make this competition available Agency-wide.

III. AWARD CATEGORIES

Nominations may be submitted in ten categories.

1. Control Systems and Technology (CS)

This category includes research on the development, design, testing and deployment of treatment and disposal systems and on the adaptation of existing systems to new uses. The research may include the development of prototypes, model systems, operations and maintenance equipment, pilot systems, or performance evaluations.

2. Ecological Research (ER)

This category includes experimental or field research, structure and functions of ecosystems research, interaction of organisms with their ecosystem, and stressors' effects and their interaction on ecosystems.

3. Health Effects Research and Human Health Risk Assessment (HE)

This category includes laboratory and epidemiological analytical research for human health risk estimation and studies for improving human health risk assessment.

4. Monitoring and Measurement Methods (MM)

This category includes research on developing indicators, monitoring systems, and designs for measuring the exposures of ecosystems to multiple stressors and the resultant response of ecosystems at local, regional, and national scales.

5. Transport and Fate (TF)

This category includes research on the mechanisms and moderators of the movement of chemicals within and among environmental media, their transformations, and storage in the environment by chemical, physical, and biological processes. The research may include laboratory or field research and models.

6. Review Articles (RA)

A review article may be in any disciplinary area. Review articles should include a **synthesis and a critical analysis** of previous work that lead to a better understanding and provide new insight into a particular discipline.

7. Risk Management and Ecosystem Restoration (RM)

This category consists of research that evaluates policy initiatives in ways that develop analysis and information to integrate science, engineering, and social science in support of environmental policy and regulatory decisions (e.g., standards). It includes developing prevention, management, adaptation, and remediation technologies to design, manage, restore, or rehabilitate ecosystems to achieve local, regional, and national goals.

8. Integrated Risk Assessment (IR)

This category covers research (observation, experimental and theoretical) directed towards the goal of integrating human health and ecological risk assessment methods and analysis. It includes processes and modeling research for developing the models to understand, predict, and assess the current and probable future exposure and response of ecosystems to multiple stressors at multiple scales. It also includes risk assessment research for developing and applying assessment methods, indices, and guidelines for quantifying risk to the sustainability and vulnerability of ecosystems from multiple stressors at multiple scales.

9. Social Sciences (SS)

This category covers social science research pertaining to EPA's policy formulation and regulatory and enforcement responsibilities. It specifically includes Anthropology, Psychology, Sociology, Decision Making, Economics, and Urban and Community Planning.

10. Environmental Futures (EF)

This category includes the search for "Targets of Opportunity" beyond the normal planning horizon with accompanying higher risk. The EPA's Science Advisory Board Report, 1995 titled: Beyond the Horizon - Using Foresight to Protect the Environmental Future expresses additional areas of interest.

IV. AWARD LEVELS

Three levels of awards are available within each research category. The final award amount for each level is determined by ORD based on available funds.

- Level I $5,000
- Level II $2,500
- Level III $1,000

Level I awards are for nominees who have accomplished an exceptionally high-quality research or technological effort. The nomination should recognize the creation or general revision of a scientific or technological principle or procedure, or a highly significant improvement in the value of a device, activity, program, or service to the public. It must be at least of national significance or have a high impact on a broad area of science/technology. The nomination must be of far reaching consequences and recognizable as a major scientific/technological achievement within its discipline or field of study.

Level II awards are for nominees who have accomplished a notably excellent research or technological effort that has qualities and values similar to, but to a lesser degree, than those described under Level I. It must have timely consequences and contribute as an important scientific/technological achievement within its discipline or field of study.

Level III awards are for nominees who have accomplished an unusually notable research or development effort. The nomination can be for a substantial revision or modification of a scientific/technological principle or procedure, or an important improvement to the value of a device, activity, program, or service to the public. It must relate to a mission or organizational component of EPA, or significantly affect a relevant area of science/technology.

Honorable Mention - The Science Advisory Board has added a fourth non-cash level award for nominations which are noteworthy but which do not warrant a Level 1, II or III award. Honorable Mention applies to nominations that: (1) may not quite reach the level described for a Level III award; (2) show a promising area of research that the SAB Subcommittee wants to encourage; or (3) show an area of research that the SAB Subcommittee feels is too preliminary to warrant an award recommendation (yet).

All awards are distributed based on the nominees' designated percentage of contribution. Any number of coauthors may share a single award. For example, if there are two eligible EPA authors (eligible to receive monetary awards) and two ineligible authors (ineligible to receive monetary awards) who each contributed 25% on a $2,500 award, the two eligible authors will

each receive 25% of $2,500, or $625, in award money.

An author's minimum monetary award will be automatically $100.

Note: If an eligible EPA author **has previously received a STAA monetary award** for the research that led to the published paper or **previously received a monetary award** for the nominated publication, then the author becomes **ineligible** to receive the monetary award for that publication. However, they are still eligible to receive non-monetary recognition associated with the award.

V. CRITERIA FOR ELIGIBILITY

All nominations must meet the following criteria:

- The nominated publication(s) must have been published in a high-quality **peer reviewed journal**, or (for reviews articles) in a suitable book. A paper should stand on its own merits. Work should be published in journals that are professionally relevant to the field of work.

- An eligible author is an EPA employee or a Public Health Service (PHS) employee assigned to EPA when the relevant research was conducted. PHS employees working at EPA are considered eligible employees, but they may not receive monetary awards.

- An EPA employee must be the principal author on the publication. A **principal author** of a paper is the primary writer, leader, integrator and creator of the paper. The principal author is responsible for the quality assurance, quality control, presentation and defense of everything contained in the paper.

- The eligible EPA author(s) must have contributed collectively a minimum of 60% toward the publication(s).

- A **contributing author** is a major substance provider to the research product. The contributing author is responsible for the quality assurance, quality control, and integrity of the input to the paper but does not have primary responsibility for the overall paper. A contributing author may or may not write the paper in part but must be a substantive expert reviewer for the representations made in the paper.

- Acknowledgments are encouraged for support personnel who contributed to the production of the paper but are not principal or contributing authors. This
- category does not include monetary awards.

- Contractors, grantees and their employees, as well as all other persons NOT directly

employed by EPA, are not eligible for awards through this program.

- The research, as presented in the published paper, must have been completed within the five years preceding the 2000 award year, i.e., since January 1995.

- The nominated paper must have been published within three years prior to the 2000 award program, i.e., after January 1997.

- Papers nominated in any earlier STAA competition are ineligible.

- Nominations should identify any related research published previously by the principal author.

- Nominations should identify any STAA or monetary award previously received.

- Nominations should include all papers in a series, providing they are within the time limit.

VII. REQUIRED APPROVALS

Nomination packages may be initiated and prepared by any EPA scientist or engineer at any organizational level, including the publication author(s), but an author cannot serve as a Nominating Official or an Approving Official for their own paper.

Within ORD, the Nominating Official must be the Division Director and the Approving Official must be the Laboratory or Center Director. If the Division Director is an author, the Laboratory or Center Director must be the Nominating Official and the Approving Official is the Deputy Assistant Administrator for Science. If the nomination is from an ORD headquarters office, the Nominating Official must be the Office Director and the Approving Official is the Assistant Administrator or the Deputy Assistant Administrator for Science. If the Office Director is an author, the Nominating and Approving Official must be the Assistant Administrator.

Outside of ORD, the Nominating Official must be at the Division Director level or equivalent and the Approving Official must be at the Office Director level or equivalent.

If the Division Director or Office Director is an author, then the office must select appropriate Nominating and Approving Officials.

VIII. NOMINATION PROCEDURES

The following procedures must be followed to accurately and completely prepare and submit a STAA nomination package.

1. After the call letter is issued by the Assistant Administrator for Research and Development (AA/ORD), any EPA employee may initiate the preparation of the nomination package. The nomination package consists of the items listed below.

   - Nomination form
   - Publication(s)
   - Supplemental Items (no more than four items when applicable)

2. The nomination form must be filled-in completely and accurately. Directions are included with the nomination form. The **original nomination** form and twenty (20) copies must have the signatures of both the Nominating Official and the Approving Official.

3. The justification questions provide a brief outline of why the achievement deserves recognition. Justification answers should not summarize the paper. Substantial evidence should be shown for the following:

   - a statement of scientific merit of the nominated paper.
   - a statement of the importance of the generic application potential of the research.

4. **Twenty copies of the publication(s)** must be attached to the twenty (20) copies of the nomination form. Multiple paper nominations should be indicated on the nomination form and all papers attached in the nomination packages. Publications and supplemental items cannot be returned.

5. **Supplemental material** may be included with the nomination package. There should be no more than four supplemental items. Supplemental items may include the following:

   - patent documents;
   - other publications relating to the nominated paper's achievement;

- other papers published from the series not part of the nominations;

- selected excerpts or abstracts from other sources relevant to the achievement

Supplemental items provide background information and perspective.

6. **The original and twenty** (20) copies of the nomination package, including 20 copies of the publication, must be submitted to the National Center for Environmental Research (NCER) along with a brief cover memorandum transmitting the nomination. The cover memorandum should be signed by the Approving Official.

   The original and twenty (20) copies, with the cover memorandum, are submitted to:

   U.S. Environmental Protection Agency
   National Center for Environmental Research (8725R)
   ATTN: Dr. Richard Nalesnik, Peer Review Division
   Ariel Rios Building
   1200 Pennsylvania Avenue, NW
   Washington, DC 20460

7. All material is due to NCER by COB November 24, 2000. Due to the extensive processing requirements, no extensions will be permitted. If incomplete packages are received, they will be returned to the contact person. Returned material may be resubmitted, however, NCER is not responsible for incomplete packages that are submitted or returned too late to be included in the current year's program.

IX. EVALUATION GUIDELINES

The nomination packages are received by NCER, Peer Review Division (PRD) in ORD. After the nomination packages are screened for completeness by NCER, the packages are forwarded to the SAB. The SAB convenes a subcommittee to review the nominations. Each year, the subcommittee members are selected based on their expertise in the categories of science and technology addressed by the nominated publications. When necessary, the subcommittee obtains additional reviews from experts to ensure the credibility of the review process. The SAB reviews the nomination packages according to the following factors:

- The extent to which the work reported in the nominated paper resulted in either new or significantly revised knowledge. The accomplishment should represent an important advancement of scientific knowledge or technology relevant to environmental issues.

- The degree to which the accomplishment is a product of the originality, creativeness, initiative, and problem-solving ability of the researchers, as well as the level of effort required to produce the results.

- The extent to which environmental protection has been strengthened or improved, whether of local, national, or international importance.

- The extent of the beneficial impact of the accomplishment and the degree to which the accomplishment has been favorably recognized from outside EPA.

- The nature and extent of peer review, including stature and quality of the peer-reviewed journal, or the publisher of a book for review chapter published therein.

NOTE: Nominations that are submitted in more than one category or in the wrong category, will not be disqualified. Nominations that have been incorrectly categorized will be placed in the appropriate category by the SAB.

SCIENTIFIC AND TECHNOLOGICAL ACHIEVEMENT AWARDS (STAA)
REVIEW SCHEDULE

September 15, 2000	NCER distributes the call letter announcing the 2000/2001 STAA Program
November 24, 2000	All nominations must be received by NCER
December 15, 2000	Contractor Completes Processing All Nominations
January 15, 2001	All Nominations Transmitted to SAB
February 16, 2001	SAB Subcommittee convenes for Peer Review
March 23, 2001	SAB Delivers Recommendations to NCER